

High Throughput Method for Functionally Classifying Proteins Identified Using a Genomics Approach

Abstract

5 The present invention provides a method for functionally classifying a
protein that is capable of unfolding due to a thermal change. The method
comprises screening one or more of a multiplicity of different molecules for their
10 ability to shift the thermal unfolding curve of the protein, wherein a shift
in the thermal unfolding curve indicates that the molecule binds to the protein or
affects the stability in a measurable way; generating an activity spectrum for the
protein wherein the activity spectrum reflects a set of molecules, from the
multiplicity of molecules, that shift the thermal unfolding curve, of the protein and,
15 therefore are ligands that bind to the protein, comparing the activity spectrum for
the protein to one or more functional reference spectrum lists; and classifying the
protein according to the set of molecules in the multiplicity of different molecules
that shift the thermal unfolding curve of the protein.